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A new *Rhinoclavis* (*Longicerithium*) species (Gastropoda, Cerithiidae) from Philippines

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Abstract
Rhinoclavis (*Longicerithium*) *taniae* n. sp. is described based on material from shallow waters at Balicasag and Balabac Islands (Philippines). The new species shows remarkable similarities only with *Rhinoclavis* (*L.*) *longicaudata* (A. Adams & Reeve, 1850), type species of the subgenus *Longicerithium* and the sole living species so far known for the subgenus.

Riassunto
Si descrive *Rhinoclavis* (*Longicerithium*) *taniae* n. sp., su materiale raccolto a 10-25 m di profondità da pescatori locali alle isole di Balicasag e Balabac (Filippine). La nuova specie è vicina a *Rhinoclavis (Longicerithium) longicaudata* (A. Adams & Reeve, 1850), specie tipo del sottogenere *Longicerithium* ed unica specie vivente finora nota per questo sottogenere. La nuova specie si differenzia dalla specie tipo per diversi caratteri che riguardano soprattutto la forma della conchiglia e la scultura.

Key Words
Gastropoda, Cerithiidae, *Rhinoclavis*, *Longicerithium*, new species, Philippines.

Introduction

Thanks to the possibilities offered by telematic marketing, it is today possible to obtain interesting specimens from shell dealers. With regards to the Cerithiidae, the choice among offered specimens is wide, but the intraspecific variability of the species is so wide and complex that it is quite difficult to decide if we are facing with an undescribed species when only few, empty shells are available.
The study of cerithiid specimens from Philippines, revealed that some of them were a different species, misidentified as *Rhinoclavis (Longicerithium) longicaudata* (A. Adams & Reeve, 1850). The available material is not abundant (20 shells), but the characters are constant and clearly different from those of *Rhinoclavis (L.) longicaudata*. A new species is described from this material.

Systematics

Family CERITHIIDAE Férussac, 1822
Genus *Rhinoclavis* Swainson, 1840
(type-species *Murex vertagus* Linnaeus, 1758)
Subgenus *Longicerithium* Houbrick, 1978
(type-species *Cerithium longicaudatum* A. Adams & Reeve, 1850)

Rhinoclavis (Longicerithium) taniae n. sp.
Figs 1A-O, 2B

Type material

Holotype, H 32.2 mm, D 8.2 mm Balicasag Island, Philippines (Acquario Civico di Milano, ACQMI 0822502), Paratype A, H 31.9 mm, D 9.7 mm, Balicasag Island. Paratype B, H 30.1 mm, D 8.5 mm, Balicasag Island. Paratype C, H 28.2 mm, D 7.3 mm, Balicasag Island. Paratype E, H 33.0 mm, D 8.9 mm, Balicasag Island. Paratype D, H 26.1 mm, 7.1 mm, Balicasag Island. Paratype F, H 36.0 mm, D 9.6 mm, Balicasag Island (Museo Civico di Storia Naturale, Milano, MSNM n° Mo 34150).

Type locality

Balicasag Island, about 6 Km SE of Panglao (SE of Bohol), Philippines.

Other material

Balicasag and Balabac (south of Palawan), Philippines, 13 shells (Cecalupo coll.).

Etymology

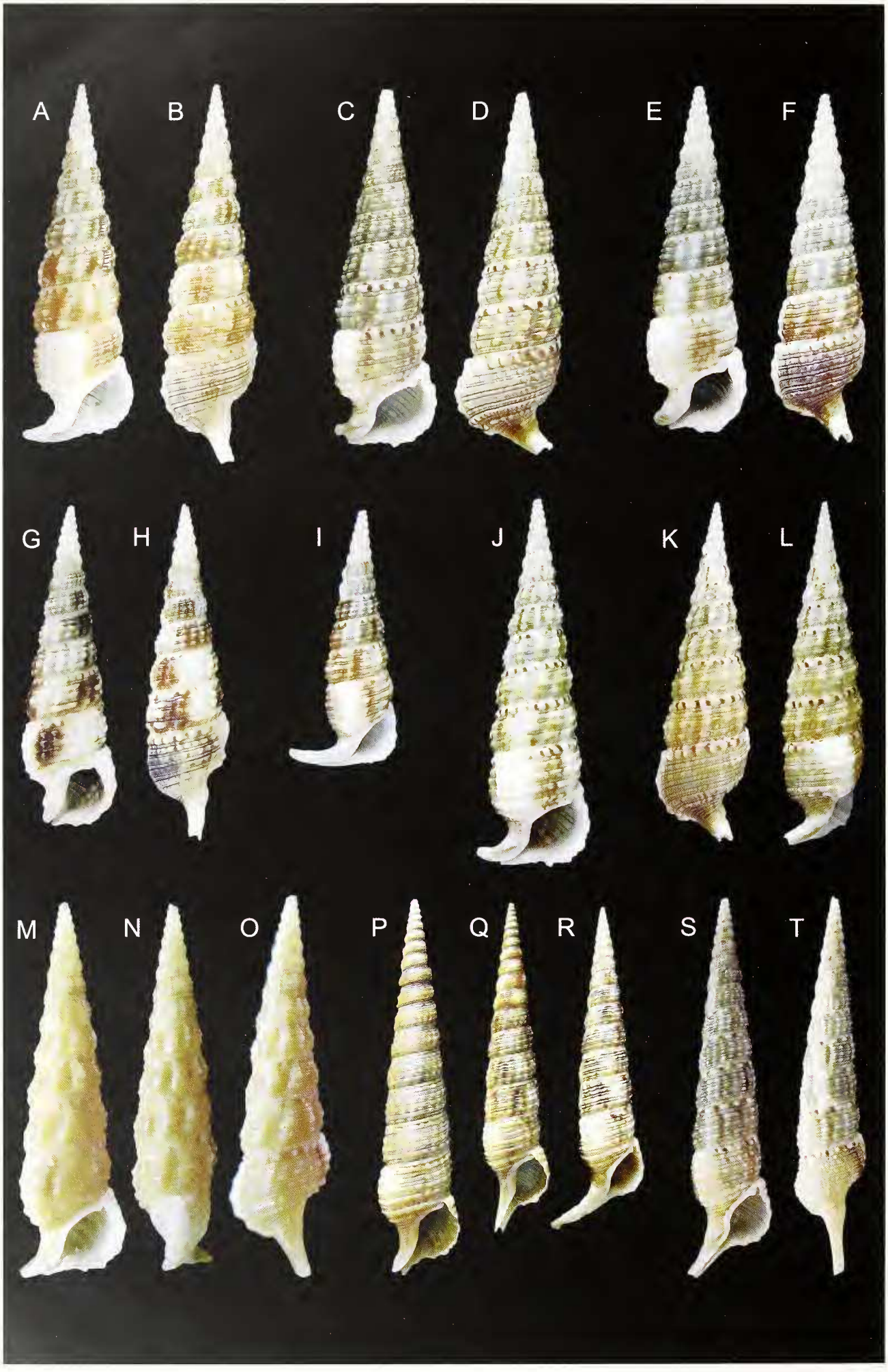
The name is a tribute to Tania, friend of the Author's family.

Distribution

The new species is only known from the Philippines (southern sector).

Description

Shell of medium size (holotype 32.2 mm in height, 8.2 mm in maximum diameter), robust, elongate-turreted, moderately slender, apical angle 22-25°, with 14-15 slightly convex teleoconch whorls. Last whorl about



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one third of total shell height. Protoconch unknown. Suture incised, obscurely wavy. First 7-8 teleoconch whorls with thin spiral cords and axial riblets of similar strength, giving a delicate cancellate-beaded sculpture, each whorl with a weak varix. Sculpture of later whorls consisting of moderately strong axial prosocline ribs, numbering 11-12 per whorl, crossed by somewhat flat spiral cords, 4 dominant alternating with weaker cords, forming beads at intersections with axial ribs. Subsutural cord with well defined, roundish beads, 14-15 in number per whorl. Sculpture on last whorl weaker, mainly spiral, with well defined subsutural beaded cord. Strong varix at about 360° from aperture. Columella concave with moderate parietal callus; columellar plait very weak and internal, not always present. Aperture ovate, inclined. Outer lip well rounded, flared, crenulate, externally thickened by labial varix, internally with weak denticle-like lirae. Siphonal canal markedly elongate, deep, strongly reflected leftward about 90° degrees to shell axis. Posterior sinus well distinct, moderately deep, bordered with a parietal plait slightly extending into aperture. First 7-8 whorls always uniformly beige, then variable, generally with light to dark brown blotches, axially arranged, on white to greyish background and darkly coloured interspaces of subsutural beads. Columellar callus, outer lip and labial varix white; inside of aperture whitish, internally dark with brown-rusty spiral lines. Operculum and soft parts unknown.

Variability

No marked variability was observed in size, shape and sculpture, but the new species is variable in colour. The blotched pattern seems common (**Fig. 1A-L**), but shells with more uniform colour are also known, ranging from light brown (**Fig. 1M-O**) to dark brown, as the melanic shell illustrated by Poppe (2008: pl. 3, fig. 8), misidentified as *Rhinoclavis (L.) longicaudata*.

Remarks

The sole living species so far known for *Longicerithium* is the type species, *Rhinoclavis (L.) longicaudata* (A. Adams & Reeve, 1850) (**Figs 1P-T, 2B**). It is fairly well known in literature (Melvill, 1897; Houbrick, 1978; Springsteen & Leobrera, 1986; Goto & Poppe, 1996; Higo et al., 1999, 2001; Cecalupo, 2006; Poppe, 2008), but not common in the collections, probably being a rare species with a restricted distribution (Philippines, Solomon and Fiji Islands). This species was firstly described as *Cerithium attenuatum* by Philippi (1848: p. 21, 1851: pl. 1, fig. 2) and reported as *Vertagus attenuatus* by Sowerby (1865: p. 43, pl. 10, fig. 15) and as *Cerithium (Vertagus) attenuatus* by Tryon (1887: pl. 28, fig. 57). *Cerithium attenuatum* Philippi, 1848 is preoccupied by *C. attenuatum* Forbes, 1845, a fossil species from Greenland (Houbrick, 1978). The type material of *C. longicaudatum* is unknown, but Houbrick (1978) remarked: "Philippi's (1851) figure is a good representation and cannot be confused with any other *Cerithium* or *Rhinoclavis* species. I herein selected his figure (Tab. 2, fig. 2) to represent the lectotype".

Rhinoclavis (L) gendinganensis (K. Martin, 1899), from the Pliocene of Java, seems the only fossil species of *Longicerithium* so far known. It is particularly similar to *longicaudata*, as remarked by Houbrick (1978: p. 88): "*R. gendinganensis* differs from living *longicaudata* only in having slightly large beads on the spiral cords sculpturing each whorl".

When describing *Longicerithium* as a subgenus of *Rhinoclavis*, Houbrick (1978: p. 85) remarked: "*Rhinoclavis longicaudata* has frequently been referred to the genus *Rhinoclavis* Swainson but it is so different from *Rhinoclavis s.s.* or other living and extinct cerithiid genera that I believe it and its precursors merit subgeneric recognition. The slender, *Turritella*-like shape, small aperture and extreme length of the anterior canal are unique among cerithids. The slight median columellar plait does not extend into the aperture along the entire axis of the shell as in *Rhinoclavis* s.s. The sculptural pattern is costant on all whorls in contrast to that of all other rhinoclavid snails which show disparity between the sculpture on early whorls and that of the adult portion of the shell". In a later work, Houbrick (1988: p. 99) remarked again the long siphonal canal of *Longicerithium*: "Long siphonal canals are common in many genera of the Cerithiidae and become pronounced in the genus *Rhinoclavis* Swainson and especially so in the subgenus *Longicerithium* Houbrick".

Rhinoclavis taniae n. sp. shows remarkable similarities with the type species of *Longicerithium*. The new species

Fig. 1. A-O. *Rhinoclavis (Longicerithium) taniae* n. sp. **A-B.** Holotype, H 32.2 mm, D 8.2 mm (Acquario Civico di Milano, ACQMI 0822502), Balicasag Island, SE of Panglao, Philippines. **C-D.** Paratype A, H 31.9 mm, D 9.7 mm, Balicasag Island (Cecalupo coll.). **E-F.** Paratype B, H 30.1 mm, D 8.5 mm, Balicasag Island (Cecalupo coll.). **G-H.** Paratype C, H 28.2 mm, D 7.3 mm, Balicasag Island (Cecalupo coll.). **I.** Paratype D, H 26.1 mm, 7.1 mm, Balicasag Island (Cecalupo coll.). **J.** Paratype F, H 36.0 mm, D 9.6 mm, Balicasag Island (Museo Civico di Storia Naturale Milano, MSNM Mo 34150). **K-L.** Paratype E, H 33.0 mm, D 8.9 mm, Balicasag Island (Cecalupo coll.). **M-O.** H. 22.8 mm, D 6.0 mm, Balabac Island, south of Palawan, Philippines (Cecalupo coll.). **P-T.** *Rhinoclavis (Longicerithum) longicaudata* (A. Adams & Reeve, 1850). **P.** H 39.3 mm, D 8.1 mm, Panay, Caridad, Philippines (Cecalupo coll.). **Q.** 35.0 mm, D 7.3 mm, Panay, Caridad, Philippines (Cecalupo coll.). **R.** H 35.1 mm, D 7.2 mm, Panay, Caridad, Philippines (Cecalupo coll.). **S-T.** H 46.2 mm, 9.7 mm, Negros, Bonbonon, Philippines (Cecalupo coll.).

Fig. 1. A-O. *Rhinoclavis (Longicerithium) taniae* n. sp. **A-B.** Olotipo, H 32,2 mm, D 8,2 mm (Acquario Civico di Milano, ACQMI 0822502), Balicasag, a sud-est di Panglao, Filippine. **C-D.** Paratipo A, H 31,9 mm, D 9,7 mm, Balicasag (coll. Cecalupo). **E-F.** Paratipo B, H 30,1 mm, D 8,5 mm, Balicasag (coll. Cecalupo). **G-H.** Paratipo C, H 28,2 mm, D 7,3 mm, Balicasag (coll. Cecalupo). **I.** Paratipo D, H 26,1 mm, 7,1 mm, Balicasag (coll. Cecalupo). **J.** Paratipo F, H 36,0 mm, D 9,6 mm, Balicasag (Museo Civico di Storia Naturale Milano, MSNM Mo 34150). **K-L.** Paratipo E, H 33,0 mm, D 8,9 mm, Balicasag (coll. Cecalupo). **M-O.** H. 22,8 mm, D 6,0 mm, Balabac, a sud di Palawan, Filippine (coll. Cecalupo). **P-T.** *Rhinoclavis (Longicerithum) longicaudata* (A. Adams & Reeve, 1850). **P.** H 39,3 mm, D 8,1 mm, Panay, Caridad, Filippine (coll. Cecalupo coll.). **Q.** 35,0 mm, D 7,3 mm, Panay, Caridad (coll. Cecalupo). **R.** H 35,1 mm, D 7,2 mm, Panay, Caridad (coll. Cecalupo). **S-T.** H 46,2 mm, 9,7 mm, Negros, Bonbonon, Filippine (coll Cecalupo).

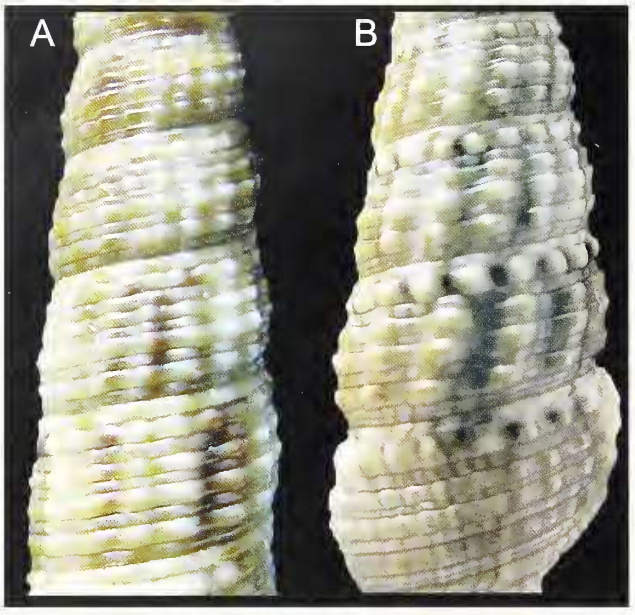

Fig. 2. Detail of sculpture. **A.** *Rhinoclavis (Longicerithium) longicaudata* (A. Adams & Reeve, 1850). **B.** *Rhinoclavis (Longicerithium) taniae* n. sp.

Fig. 2. Dettaglio della scultura. **A.** *Rhinoclavis (Longicerithium) longicaudata* (A. Adams & Reeve, 1850). **B.** *Rhinoclavis (Longicerithium) taniae* n. sp.

differs by being much less elongate and slender in shell shape, with a larger last whorl, greater apical angle (about 22°-25° *vs* 20°-21°) and a smaller height/diameter ratio (4.61-4.67 in *longicaudata*, 3.54-3.60 in the new species). The whorls are slightly more convex in the new species. In both, the first 7-8 teleoconch whorls have a fine cancellate-beaded sculpture, but in the new species, a weak varix is also present up to the 5th-8th whorl. In *Rhinoclavis (L.) longicaudata* the spiral sculpture consists of 9-10 cords of similar strength (**Fig. 2A**), whereas 8 spiral cords, stronger and weaker alternated, are present in the new species (**Fig. 2B**). The varices also have a different distribution: in both species two varices are present in the last whorl (one as a terminal labial varix), but in *Rhinoclavis (L.) taniae* n. sp. there are weak varices on the first 6-7 whorls. The aperture is broader in the new species, the outer lip and the columellar callus are markedly thicker. In both species, the columellar plait is very weak and not always developed (it is probably formed when the fully adult stage is reached). It is worth noting that a well developed columellar plait is present in *Rhinoclavis* s.s. The siphonal canal is shorter than in *Rhinoclavis (L.) longicaudata*, but notably more reflected (about 90° in the new species, 60°-70° in *longicaudata*).

The shell color is rather uniform in *Rhinoclavis (L.) longicaudata*, brown or rusty, with ill defined axially elongate whitish blotches. In the new species, the first 7-8 teleoconch whorls are uniformly beige (in all the examined shells) and the later whorls show a blotched pattern. However, shells with a more uniform colour are also known, as discussed about variability.

For *Rhinoclavis (L.) longicaudata*, a maximum shell size of 57 mm in height, 13.5 mm in diameter, is known (a shell from Philippines) and a shell height of 46 mm was recorded by Houbrick (1978), whereas fully grown shells of the new species do not exceed 25 mm in shell height.

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